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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,121	10/31/2003	Michel Diane Cyriel Van Ackere	Q78135	8457

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

NGUYEN, QUANG N

ART UNIT	PAPER NUMBER
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2141

MAIL DATE	DELIVERY MODE
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09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/697,121

Applicant(s)

VAN ACKERE ET AL.

Examiner

Quang N. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20031031</u> . | 6) <input type="checkbox"/> Other: _____ |

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Detailed Action

1. This Office Action is responsive to the Application SN 10/697,121 filed 10/31/2003. Claims 1-14 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 10/31/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 7 recited a claimed element "**an individually associated routing table**" as a means for performing a specified function "**providing access to a network from a source**". The recited claim limitation regards as a single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph.

In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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7. **Claims 11-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

8. As to claims 11-12, it appears that claims 18-19 would reasonably be interpreted by one of ordinary skill as a system of "software per se", failing to fall within a statutory category of invention. Examiner respectfully submits that Applicants' disclosure reciting, ***"With reference numeral 44, an operating system component is schematically illustrated. The operating system component 44 is part of the operating system running on client terminal 12, as it is basically known to those skilled in the art"*** (page 9, paragraph 3), provides intrinsic evidence that the operating system component of claims 11-12 is intended to cover "software", functional descriptive material, per se. As such, the system of "software" alone is not a machine, and it is clearly not a process, manufacture nor composition of matter. Thus, the claim is not limited to statutory subject matter and is therefore nonstatutory.

9. As to claims 13-14, "A computer software product:" appears to be nonstatutory because it fails to fall within a statutory category of invention. As such, the system of "software" alone is not a machine, and it is clearly not a process, manufacture nor composition of matter. Thus, the claim is not limited to statutory subject matter and is therefore nonstatutory.

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Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. **Claims 1, 3-5 and 7-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Shen (US 2004/0013120 A1).**

12. As to claim 1, **Shen** teaches a method of relaying traffic from a source to a targeted destination in a communications network, said method comprising the steps of:

providing a first and at least one second network adapter each providing access to a network having a plurality of destinations (*providing egress ports 151 A-C of Fig. 1 and/or interfaces I/F 1, 4, 5 and 7 of Fig. 4*) (**Shen, Figs. 1 and 4-5**),

providing a first routing table which defines at least a first destination associated with the first network adapter (*providing a first routing table 405 for VR-A which defines external destination ED1 associated with interface I/F1*) (**Shen, Fig. 4**), and

relaying said traffic from the source to the targeted destination using one of the network adapters (*the destination of the packet 201 is looked up in the forwarding table to determine the appropriate outgoing interface*) (**Shen, paragraphs [0027-0028]**),

said method comprising the further step of providing at least one second routing table defining a second destination, which second destination is individually associated with said at least one second network adapter (*providing a second routing table 407A for VR-B defining external destination ED2 associated with interface I/F4 as illustrated in Fig. 4*), wherein the step of relaying includes a step of selecting one of the first and second routing tables (*depending on the destination, such as ED1 or ED2, the packet is relayed using the first or second routing table as illustrated in Fig. 4*) (**Shen, paragraphs [0027-0029]**).

13. As to claim 3, **Shen** teaches the method of claim 1, wherein at least some of the first and second routing tables comprise specific destinations pointing to another routing table, preferably by means of a next hop entry (**Shen, paragraph [0029]**).

14. As to claim 4, **Shen** teaches the method of claim 1, wherein the step of providing network adapters includes providing real network adapters and providing at least one virtual network adapter, wherein each virtual network adapter is individually associated with a third routing table (*providing internal routing processes 506A-F and their corresponding VR interior gateway routing tables 509A-F*) (**Shen, Fig. 5 and paragraphs [0050-0051]**).

15. As to claim 5, **Shen** teaches the method of claim 4, wherein the third routing table includes next hop and interface entries pointing to at least one of the following: another routing table or a real network adapter, and wherein the step of relaying uses the at least one virtual network adapter and its associated third routing table (*if the destination of the packet is ED3, then the forwarding module 207 forwards the packet 201 to the virtual router 205B and the virtual router 205B will process the packet 201 in accordance with its forwarding/routing information/table*) (**Sh en, paragraphs [0028-0029]**).

16. As to claims 7-8, **Shen** teaches a network adapter for providing access to a network from a source, said network adapter being a virtual adapter comprising an individually associated routing table, said individually associated routing table comprising next hop and interface entries pointing to at least one of the following: another routing table or a real network adapter (*the first column of each entry indicates a destination, the last column of each entry indicates a next hop which is either an physical interface I/F1 or another routing table VR-B*) (**Shen, Fig. 2, paragraphs [0023] and [0028-0029]**).

17. Claims 9-14 recite claims that contain similar limitations as claim 1; therefore, they are rejected under the same rationale.

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Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen, in view of Killian (US 6,064,671).**

20. As to claim 2, **Shen** teaches the method of claim 1, but does not explicitly teach the first and second routing tables define said first and second destinations as default destinations which are used for traffic relay in any default situation.

In an analogous art, **Killian** teaches all routing tables should include a default entry, wherein a default routing table entry is one to be associated with any messages whose destination addresses do not match the destination address or address range of any of the other routing table entries (**Killian, page 7, lines 12-35**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of defining first and second destinations as default destinations which are used for traffic relay in any default situation for the first and second routing tables, as disclosed by **Killian**, into the teachings of **Shen**, since both references are directed to relaying network traffic using

routing tables. One would be motivated to do so to allow messages, whose destination addresses do not correspond to any specific address or address range contained in the destination column of the routing table, to be relayed to the default destination, i.e., the next hop, through which the message should be routed to get to its destination (**Killian, page 7, lines 36-43**).

21. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen, in view of Zhou (US 2002/0138578).

22. As to claim 6, **Shen** teaches the method of claim 1, but does not explicitly teach the step of selecting a routing table is triggered by the source.

In an analogous art, **Zhou** teaches when a client application program wants to communicate with a server application, the client application creates a socket on the client and may determine a client computer software port that is to be mapped to the client application. The client application then specifies that the created socket has a destination IP address corresponding to the destination computer and a destination software port that corresponds to the port mapped to the server application program (*i.e., triggered by the source to select the port associated with the destination address*), and uses the socket to make a connection request to the server application (**Zhou, page 1, paragraph [0005]**).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of selecting a routing table

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which defines the port associated with destination address, as disclosed by **Zhou**, into the teachings of **Shen**, since both references are directed to relaying network traffic using routing tables. One would be motivated to do so to allow the source, i.e., the client application, to create a socket which defines a destination address corresponding to the destination computer and a destination port that corresponds to the port mapped to the server application program, and use the socket to make a connection request to the server application (**Zhou, page 1, paragraph [0005]**).

23. Further references of interest are cited on Form PTO-892, which is an attachment to this Office Action.

24. A shortened statutory period for reply to this action is set to expire THREE (3) months from the mailing date of this communication. See 37 CFR 1.134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for the organization is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Quang N. Nguyen
Patent Examiner – AU 2141
August 15th, 2007